METHOD AND SYSTEM FOR PROCESSING DOWNSTREAM PACKETS OF AN OPTICAL NETWORK

ABSTRACT OF THE DISCLOSURE

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Unlike the conventional art which polices data at the entry points of a network, a transceiver node can police or monitor downstream bandwidths for quality of service at exit portions of an optical network. That is, the transceiver node can police downstream communication traffic near the outer edges of an optical network that are physically close

10 to the subscribers of the optical network. In this way, a network provider can control the volume or content (or both) of downstream communications that are received by subscribers of the optical network. In addition to controlling the volume of communications that can be received by a subscriber, the transceiver node employs a plurality of priority assignment values for communication traffic. Some priority

15 assignment values are part of a weighted random early discard algorithm that enables an output buffer to determine whether to drop data packets that are destined for a particular subscriber. In one exemplary embodiment, a weighted random early discard (WRED) priority value can be assigned according to the type of communication traffic supported by a packet.

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